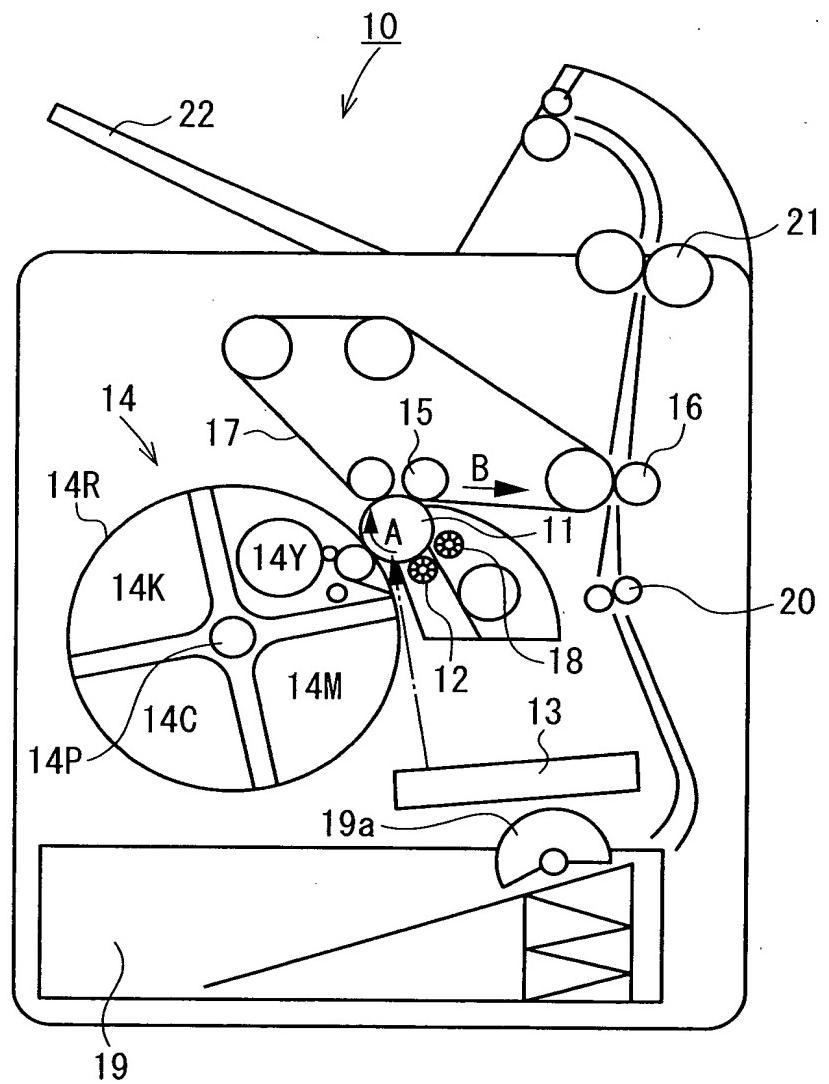
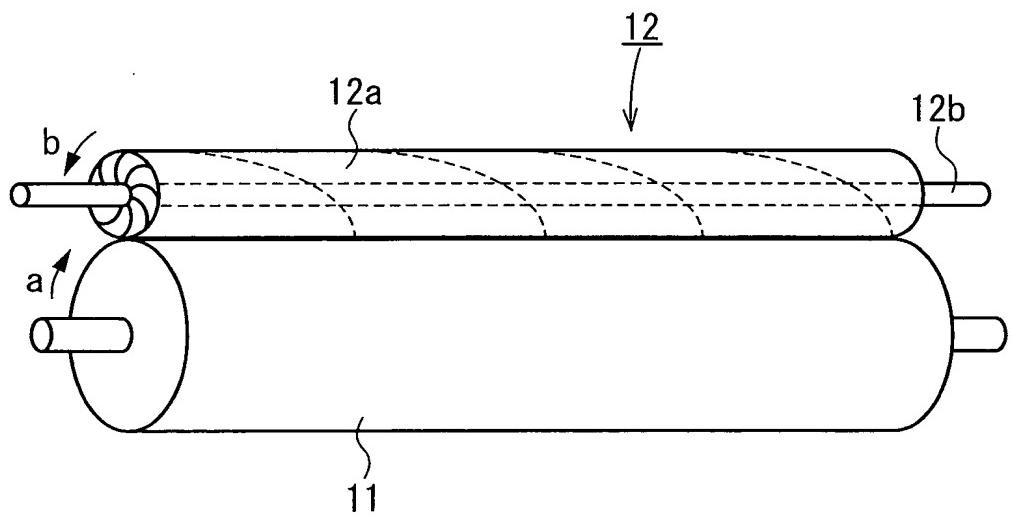


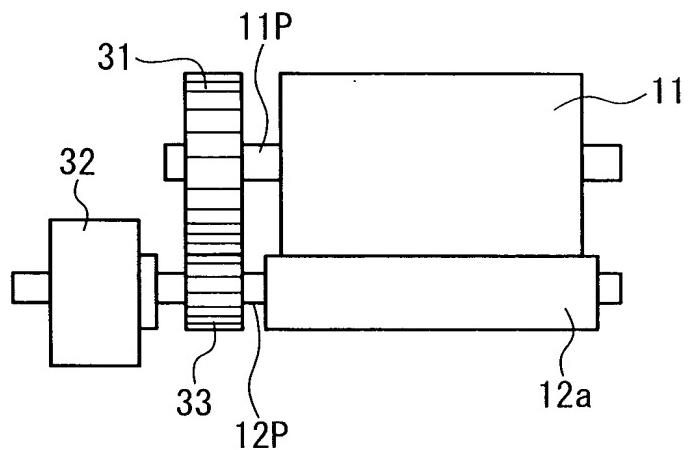
**Fig. 1**



**Fig. 2**



**Fig. 3(a)**



**Fig. 3(b)**

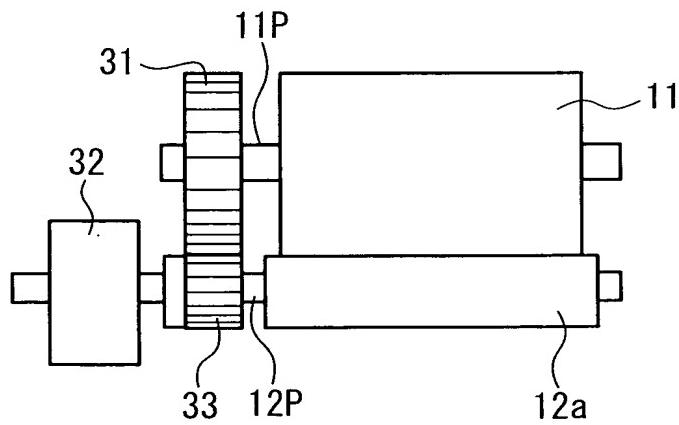


Fig. 4

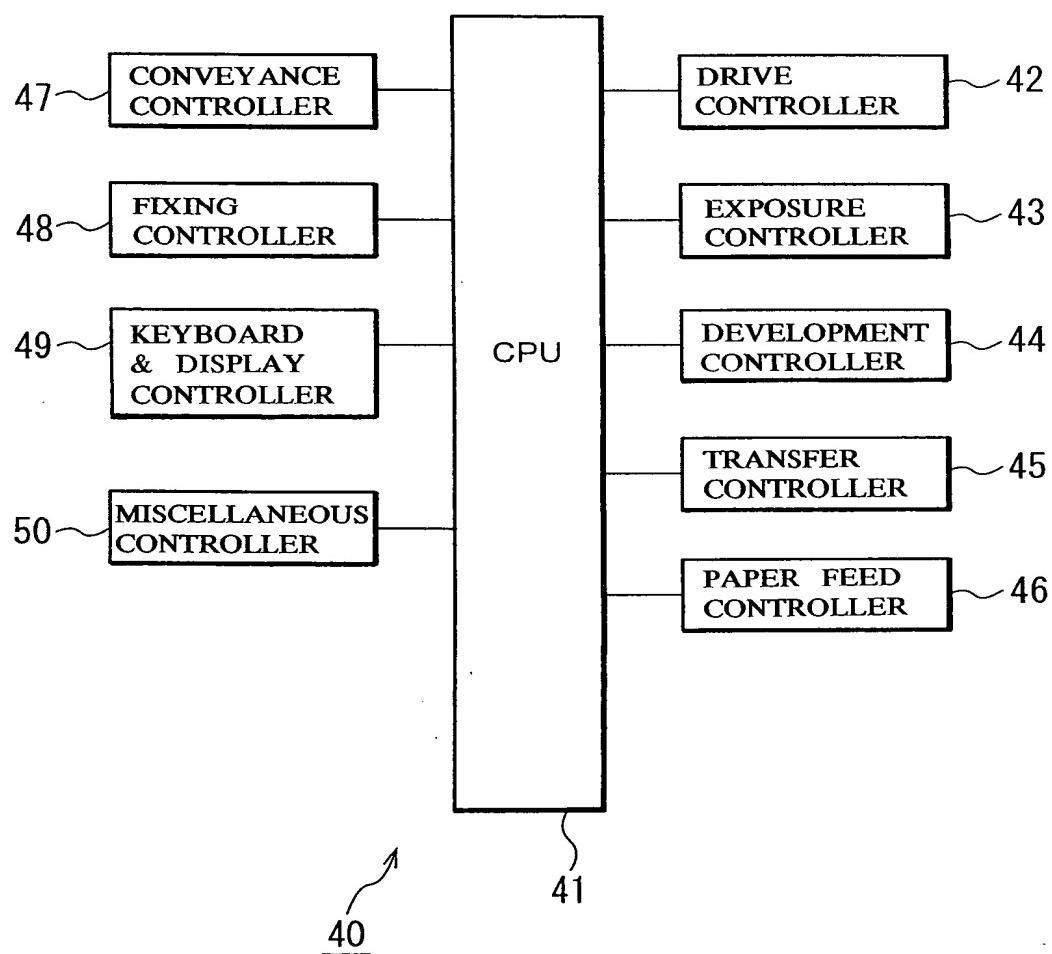
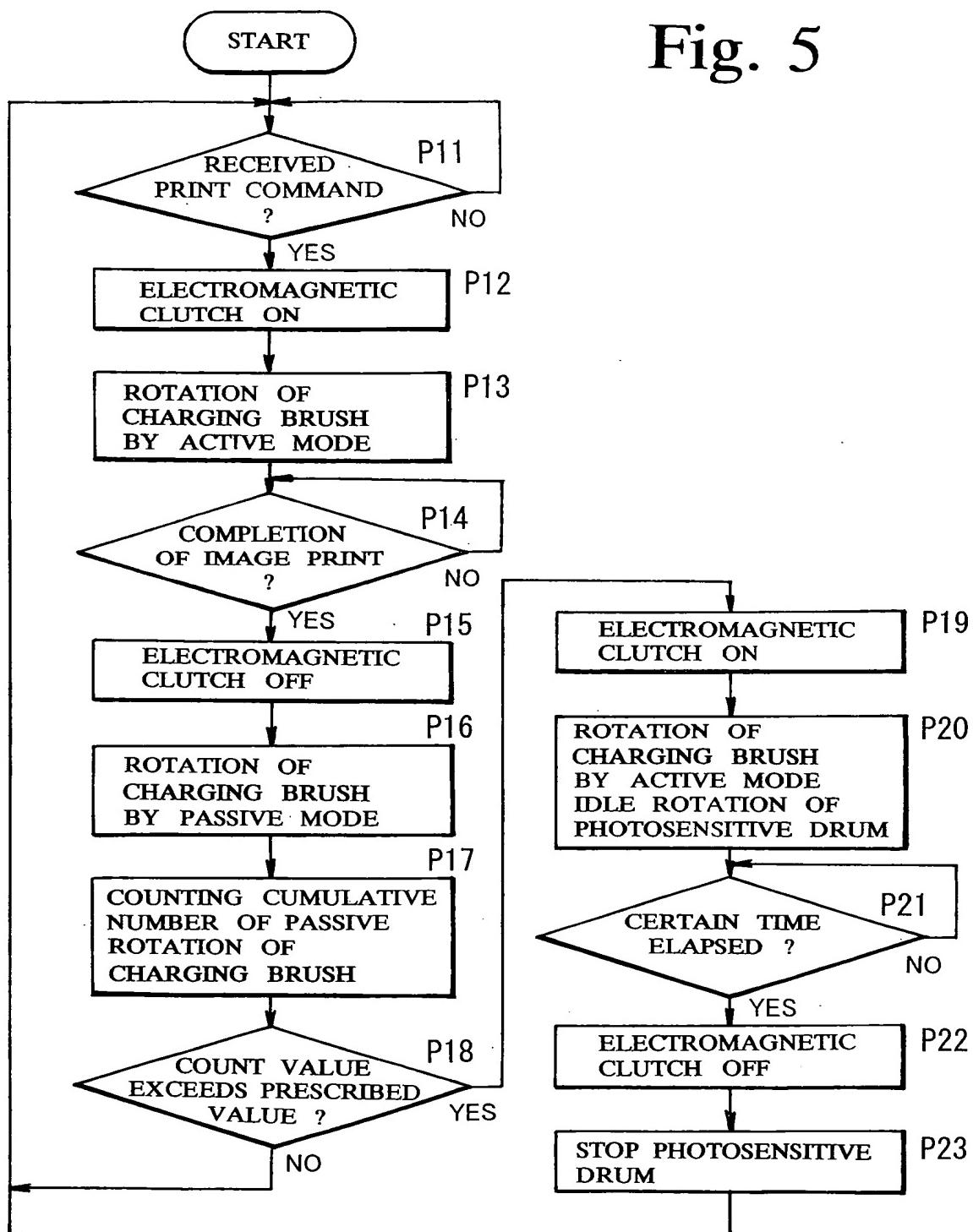
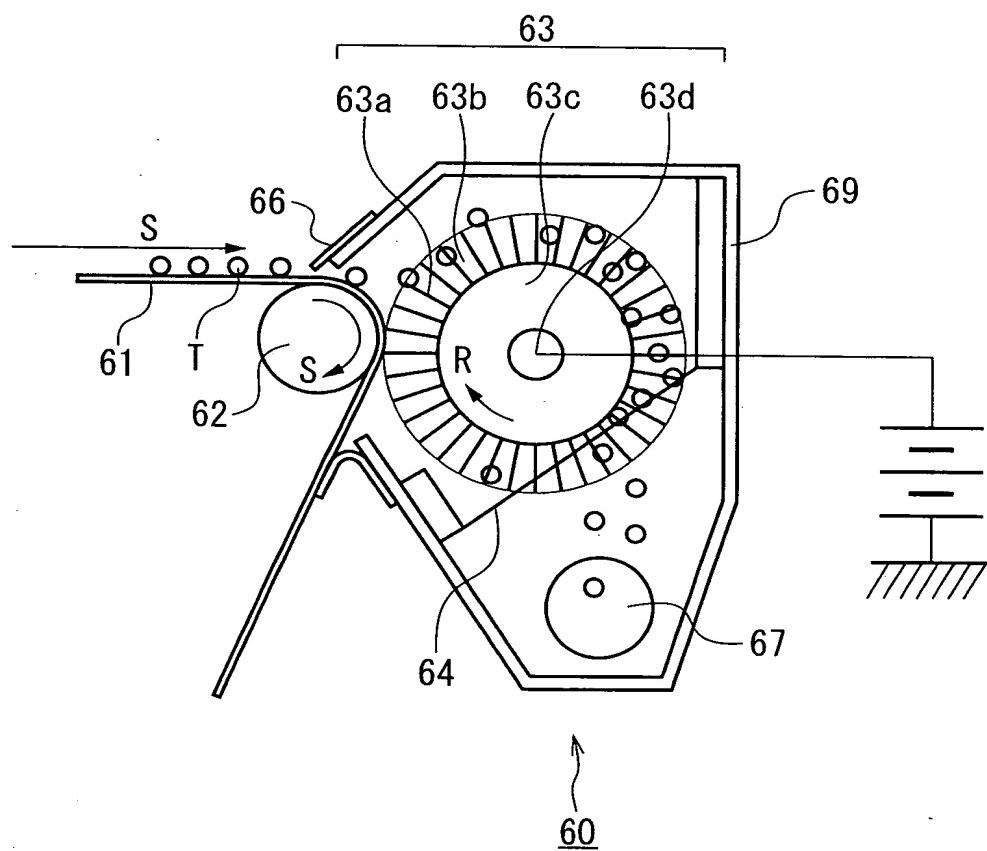


Fig. 5



**Fig. 6**



**Fig. 7**

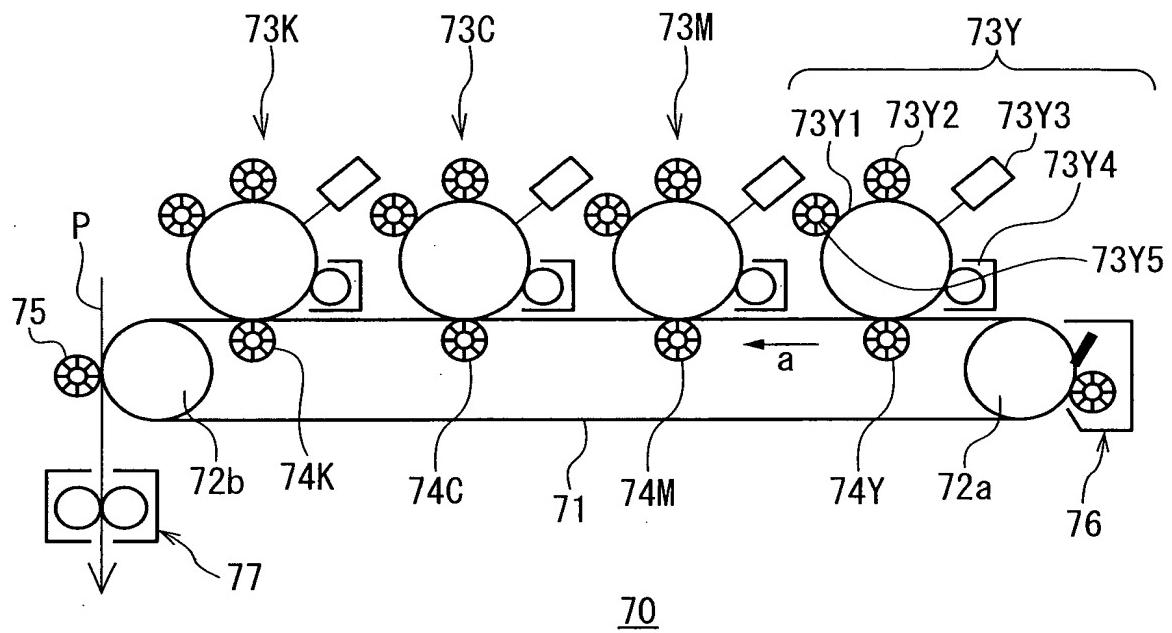
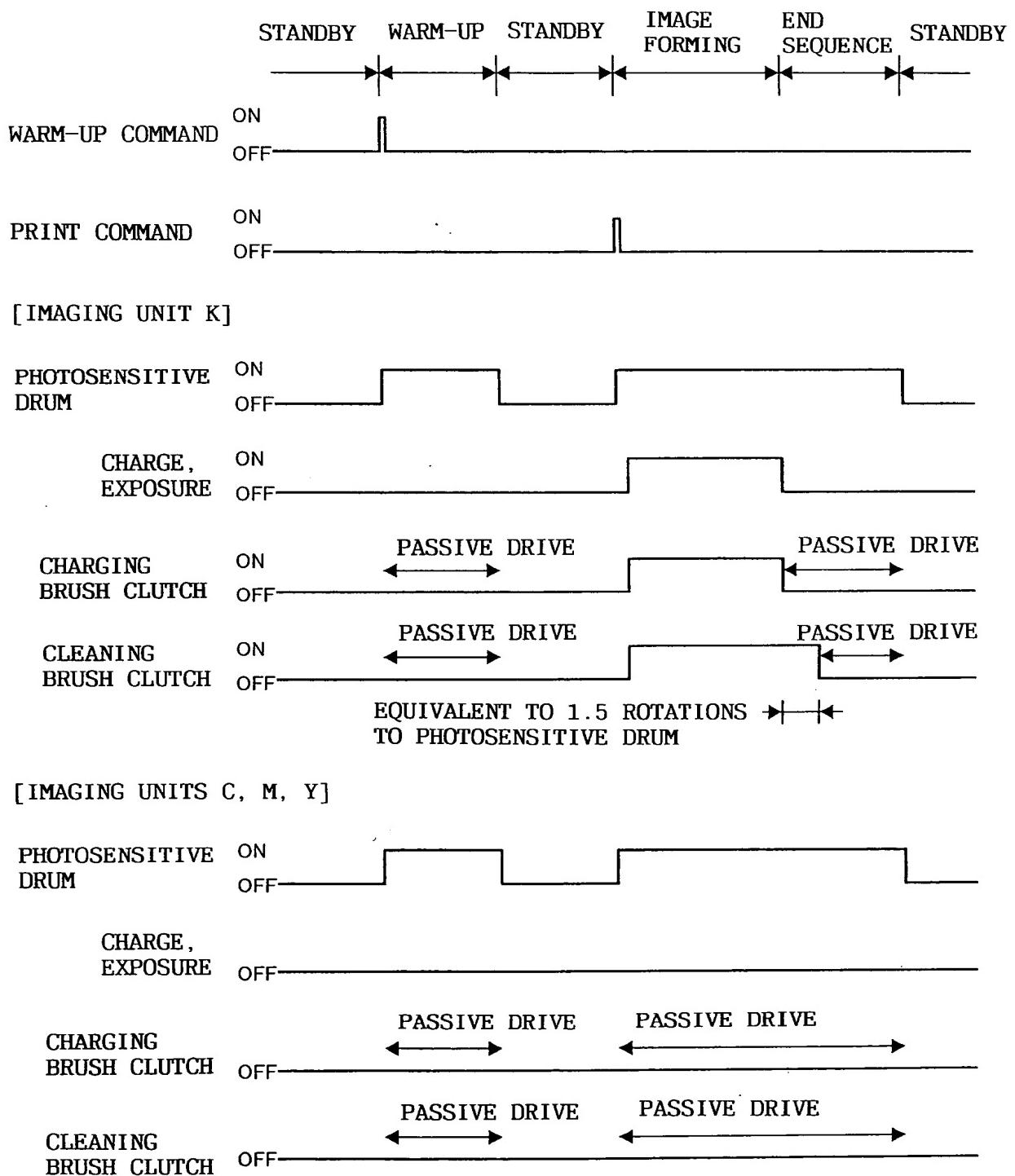


Fig. 8



**Fig. 9**

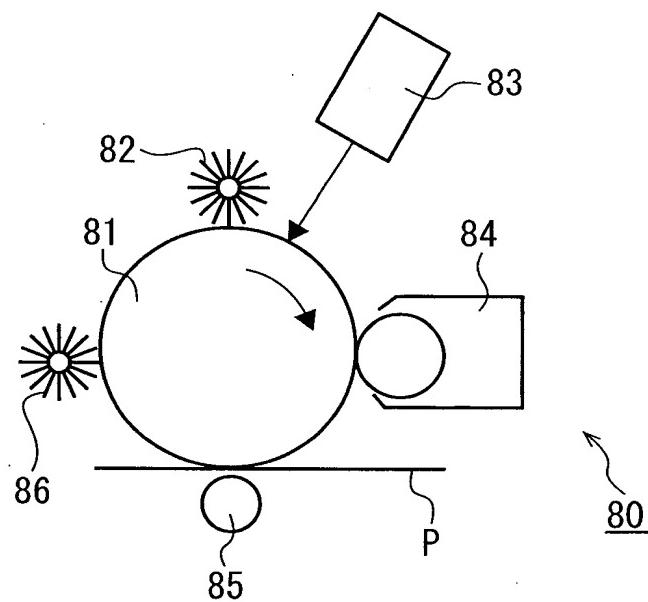


Fig. 10(a)

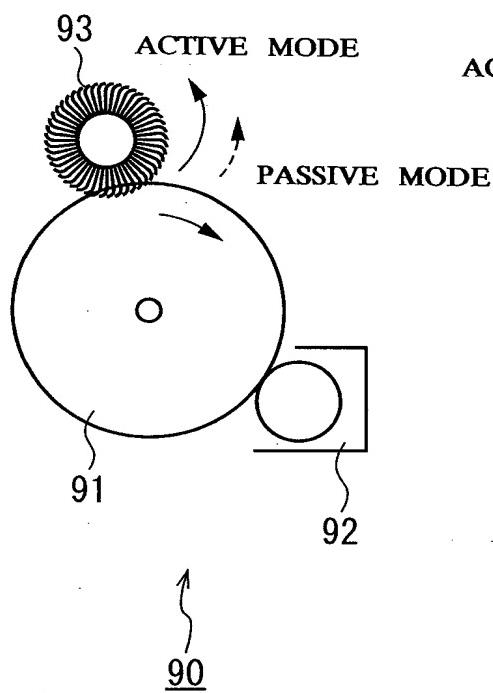
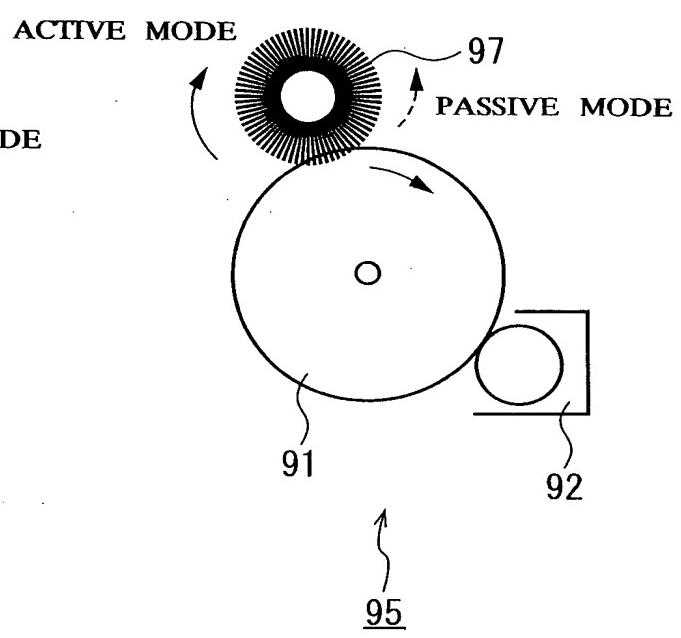


Fig. 10(b)



**Fig. 11**

	A	B	C
FIBER PLANTING DENSITY F/25.4mm <sup>2</sup>	30K-500K	50K-500K	30K-100K
FIBER FINENESS D	2D-10D	2D-6D	4D-10D
FIBER LENGTH	3mm-7mm		

**Fig. 12**

**EXPERIMENT I (Electrifying Brush – Photosensitive Drum)**

	Passive/Active Rotation Mode Switching	Amount of Push p [Nip width n]	Drum Drive Time(s) [Number of Rotation(n)] Before Forced Rotation of Brush	Voltage Application in Passive Rotation	Degree of Abrasion ( $\mu\text{m}$ )	Disorder of Brush Fiber	Image Unevenness	Over all Evaluation
Sample 11	YES	0.5mm (4.9mm)	240(s) about 1100(n)	YES	0.9	◎	◎	◎
Sample 12	YES	0.08mm (2.0mm)	240(s) about 1000(n)	NO	1.9	○	○	△
Sample 13	YES	0.5mm (4.9mm)	240(s) about 1100(n)	NO	1.3	○	○	○
Sample 14	YES	2.0mm (9.2mm)	240(s) about 1400(n)	NO	2.0	○	○	○
Sample 15	YES	0.5mm (4.9mm)	2800(s) about 12300(n)	NO	2.0	○	○	△
Sample 16	YES	2.0mm (9.2mm)	1700(s) about 10200(n)	NO	2.3	○	○	△
Reference 11	NO	0.5mm (4.9mm)	—	—	4.6	◎	△	△△
Reference 12	YES	0.05mm (1.5mm)	240(s) about 1000(n)	YES	2.1	○	×	×

**Fig. 13**

**EXPERIMENT II (Cleaning Brush – Photosensitive Drum)**

	Passive/Active Rotation Mode Switching	Amount of Push P [Nip width n]	Drum Drive Time(s) [Number of Rotation(n)] Before Forced Rotation of Brush	Voltage Application in Passive Rotation	Degree of Abrasion ( $\mu\text{m}$ )	Disorder of Brush Fiber	Image Unevenness	Over all Evaluation
Sample 21	YES	0.5mm (5.6mm)	840(s) about 2900(n)	YES	1.2	◎	◎	◎
Sample 22	YES	0.06mm (2.0mm)	1680(s) about 5400(n)	NO	1.9	○	○	△
Sample 23	YES	0.1mm (2.5mm)	1680(s) about 5400(n)	NO	1.2	○	○	○
Sample 24	YES	0.5mm (5.6mm)	1680(s) about 5700(n)	NO	1.2	○	○	○
Sample 25	YES	1.76mm (10.0mm)	1680(s) about 6900(n)	NO	1.6	○	○	○
Sample 26	YES	2.0mm (10.6mm)	1680(s) about 7100(n)	NO	1.9	○	○	○
Sample 27	YES	0.5mm (5.6mm)	4400(s) about 14990(n)	NO	1.7	○	○	○
Sample 28	YES	0.5mm (5.6mm)	5900(s) about 20100(n)	NO	1.7	△	○	△
Sample 29	YES	1.76mm (10.0mm)	3700(s) about 15200(n)	NO	2.0	○	○	○
Reference 21	NO	0.5mm (5.6mm)	—	—	5.2	○	△	△△
Reference 22	YES	0.05mm (1.8mm)	1680(s) about 5400(n)	NO	1.1	○	×	×
Reference 23	YES	2.5mm (11.6mm)	1680(s) about 7800(n)	NO	2.7	○	×	×